

REMARKS

Claims 4, 6, 13, 14, 17, 21-25, 30, 31, 35, 36, 40, 41, 44 and 61-64 are pending, with claims 17, 21-25, and 61-64 being independent. Claims 42 and 69-72 are cancelled by this amendment without prejudice or waiver.

Claims 61-64 stand objected to under 35 U.S.C. § 132 for introducing new matter in the amendment filed on August 25, 2004 and stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. Applicants have amended claims 61-64 to obviate the new matter objection and the § 112 rejection.

As amended, claim 61 recites a semiconductor device that includes, among other features, one liquid crystal panel having a TFT substrate and a counter substrate. A nonconductive material is applied to a first side edge, a second side edge, and a third side edge of the TFT substrate and the counter substrate. The nonconductive material is not applied to a fourth side edge of the TFT substrate and the counter substrate. As set forth in the application at, for example, page 9, lines 18-25, the TFT substrate and the counter substrate are cut along the common planes lying in three directions and a nonconductive resin is applied to the cut surfaces.

For at least this reason, applicants respectfully request reconsideration and withdrawal of the new matter objection and the § 112 rejection of claim 61.

Similarly, each of amended independent claims 62-64 recites an arrangement in which a semiconductor device includes, among other features, one liquid crystal panel having a TFT substrate and a counter substrate, where a nonconductive (claim 63) or a weakly conductive material (claims 62 and 64) is applied to a first side edge, a second side edge, and a third side edge of the TFT substrate and the counter substrate and is not applied to a fourth side edge of the TFT substrate and the counter substrate. Accordingly, applicants respectfully request reconsideration and withdrawal of the new matter objection and the § 112 rejection of amended independent claims 62-64 for at least the reasons discussed above with respect to claim 61.

The drawings stand objected to under 37 CFR 1.83(a) with respect to the features recited in claims 61-64. Applicants have amended claims 61-64 to obviate this objection.

For at least the reasons discussed above with respect to the new matter objection, applicants respectfully request reconsideration and withdrawal of the drawing objection.

Claims 42 and 69-72 stand rejected under 35 U.S.C. § 112, first and second paragraphs. These rejections are rendered moot by the cancellation of these claims.

Claims 4, 6, 13, 14, 17, 21-25, 30, 31, 35, 36, 40, 41, and 44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sawatsubashi (U.S. 5,148,301). Applicants respectfully traverse the rejection.

Independent claim 17 recites an active matrix liquid crystal display that includes, among other features, a sealing material sealing around a liquid crystal material and provided between a TFT substrate and a counter substrate. A driver circuit is provided over the TFT substrate. A control circuit, which includes a control circuit chip sealed in the sealing material, is provided over the TFT substrate for controlling the driver TFT.

Applicants request reconsideration and withdrawal of the rejection because Sawatsubashi fails to describe or suggest an active matrix liquid crystal display that includes a control circuit having a control circuit chip sealed in the sealing material, where the control circuit is provided over the TFT substrate for controlling the driver TFT. Rather, Sawatsubashi illustrates in Fig. 4 that the driving circuit 113 is instead covered by an alignment film 106 and it is not sealed in the seal member 108. Independent claim 17 recites that the control circuit chip is sealed in the sealing material, meaning that the complete control circuit chip is sealed within the sealing material as illustrated, for example, in application Figure 9.

For at least these reasons, applicants respectfully request reconsideration and withdrawal of the rejection of claim 17 and its respective dependent claims.

Similarly, each of independent claims 21-25 recites an arrangement in which a control circuit that includes a control circuit chip sealed in the sealing material is provided over the TFT substrate for controlling the driver TFT. Accordingly, applicants respectfully request reconsideration and withdrawal of the rejection of independent claims 21-25 and their respective dependent claims for at least the reasons discussed above with respect to claim 17.

Claims 61-64 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art (APA) in view of Inoue et al. (5,854,664), McClelland et al. (4,695,490), Sasaki et al. (4,494,825), or Kamoi et al. (JP 61029821A). Applicants have amended independent claims 61-64 to obviate this rejection.

As amended, claim 61 recites a semiconductor device that includes, among other features, one liquid crystal panel having a TFT substrate and a counter substrate. A nonconductive material is applied to a first side edge, a second side edge, and a third side edge of the TFT substrate and the counter substrate. The nonconductive material is not applied to a fourth side edge of the TFT substrate and the counter substrate.

Applicants respectfully request reconsideration and withdrawal of the rejection because APA, Inoue, McClelland, Sasaki, and Kamoi, either alone or in combination, fail to describe or suggest that a nonconductive material is applied to a first side edge, a second side edge, and a third side edge of the TFT substrate and the counter substrate of the liquid crystal panel, and is not applied to a fourth side edge of the TFT substrate and the counter substrate of the liquid crystal panel.

As noted in the Office Action, APA fails to disclose or suggest that a nonconductive material is applied to a first side edge, a second side edge, and a third side edge of the TFT substrate and the counter substrate of the liquid crystal panel, and is not applied to a fourth side edge of the TFT substrate and the counter substrate of the liquid crystal panel, as recited in amended claim 61. Inoue, McClelland, Sasaki, and Kamoi fail to remedy APA shortcomings, as none of these references describes or suggests that a nonconductive material is applied to a first side edge, a second side edge, and a third side edge of the TFT substrate and the counter substrate of the liquid crystal panel, and is not applied to a fourth side edge of the TFT substrate and the counter substrate of the liquid crystal panel.

More specifically, Inoue describes a liquid crystal display panel and a method for manufacturing the panel. As part of the manufacturing process, the panel is cut along the peripheral section of the display area, and the unnecessary section of the panel is removed. The cut surface of the substrates is coated using an ultraviolet curing-type resin. See Inoue, col. 9,

lines 25-31. Inoue does not describe or suggest that a nonconductive material is applied to a first side edge, a second side edge, and a third side edge of the TFT substrate and the counter substrate of the panel and is not applied to a fourth side edge of the TFT substrate and the counter substrate of the panel. Rather, Inoue describes that the panel is cut along the peripheral section of the display area and the cut surface is coated, which suggests that all sides of the display area are coated.

McClelland describes a sealant composition to seal the fill port in a liquid crystal display. McClelland does not describe or suggest that a nonconductive material is applied to a first side edge, a second side edge, and a third side edge of the TFT substrate and the counter substrate of the panel and is not applied to a fourth side edge of the TFT substrate and the counter substrate of the panel. Rather, McClelland describes that a sealant is applied around the periphery of the panel with the exception of about 0.5 inch to provide a fill port for the liquid crystal material, which suggests that all sides of the display area are sealed with the exception of a fill port. See McClelland, col. 4, 57-60. Similarly, Sasaki seems to suggest that a sealant is applied around the periphery of the panel with the exception of a fill port. See Sasaki, Fig. 2 and col. 2, lines 35-48.

Kamoi describes multiple sealing layers 5 and 6. See, Kamoi, Abstract. However, Kamoi does not describe or suggest that a nonconductive material is applied to three side edges of the TFT substrate and the counter substrate of the liquid crystal panel and not to a fourth side edge of the TFT substrate and the counter substrate of the liquid crystal panel, as recited in amended claim 61.

For at least these reasons, applicants respectfully request reconsideration and withdrawal of the § 103(a) rejection of amended claim 61.

Similarly, each of amended independent claims 62-64 recites an arrangement in which a semiconductor device includes, among other features, one liquid crystal panel having a TFT substrate and a counter substrate, where a nonconductive (claim 63) or a weakly conductive material (claims 62 and 64) is applied to a first side edge, a second side edge, and a third side edge of the TFT substrate and the counter substrate, and is not applied to a fourth side edge of the TFT substrate and the counter substrate. Accordingly, applicants respectfully request

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Serial No. : 08/770,792
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Page : 16 of 16

Attorney's Docket No.: 07977-105001 / US3189

reconsideration and withdrawal of the § 103(a) rejection of amended independent claims 62-64 for at least the reasons discussed above with respect to claim 61.

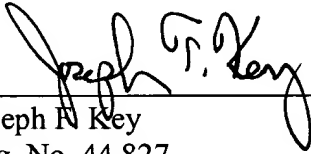
Claims 4, 6, 13, 14, 17, 21-25, 30, 31, 35, 36, 40, 41, 44, and 61-64 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of Koyama et al. (6,246,454) in view of Inoue, McClelland, Sasaki, or Kamoi. Applicants submit herewith a terminal disclaimer and, in view of this terminal disclaimer, respectfully request withdrawal of the double patenting rejection.

All claims are considered to be in condition for allowance.

Enclosed is \$580 check of which \$450 is for the Petition for Extension of Time fee and \$130 is for the terminal disclaimer fee. During the prosecution and pendency of this application, please apply any deficiencies or credits to deposit account 06-1050.

Respectfully submitted,

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